

A new heteromorphic deutonymph (*Hypopus*) of a sarcoptiform mite parasitic under the skin of a toucan

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Introduction

Fain & Bafort (1966, 1967) have shown that the hypopi that live under the skin of birds are not heteromorphic deutonymphs of feather mites as it was thought previously, but those of free-living mites living as adults in the nest of the host. A new family, Hypodectidae Fain & Bafort, 1966, was proposed to receive this group of mites. In a revision of this family, Fain (1966, 1967) described nine new genera and 22 new species.

Recently, Dr. G. O. Evans, British Museum, has drawn my attention to the fact that family rank had already been given to some members of this group by Murray (1877, p. 227). This author created the family Hypoderidae to contain the genus *Hypoderas* Nitzsch. In spite of the fact that *Hypoderas* is a synonym of *Hypodectes*, the name of the family deriving from it is nevertheless valid and has priority over the name Hypodectidae.

It seems that the name Hypoderidae Murray has been completely overlooked and I have not been able to find any reference to it in the papers of the following authors : Michael, Canestrini, Kramer, Trouessart, Megnin, Berlese, Banks, Ewing, Oudemans, Vitzthum, Baker and Wharton and Dubinin.

In the same paper Murray also created the family Acaridae. The author of this family is therefore Murray (1877) and not Ewing and Nesbitt (1942) as thought so far.

After the publication of my revision of the hypopi of birds, I have found under the skin of a Keel-billed Toucan, originating from S. America, numerous specimens of hypopi that belong to a new genus and a new species. They are described here.

Family HYPODERIDAE Murray, 1877

Hypoderidae Murray, 1877 : 227.

Hypodectidae Fain et Bafort, 1966 : 315, *syn. nov.*

Genus *TOUCANECTES* gen. nov.

Definition : This genus is known only from the heteromorphic deutonymph. It is distinguished from all the described genera of this group by the combination of the following characters : cuticle rather well sclerotized and punctate ; epimera I short and widely separate in the young hypopus, fused into a V in the completely developed hypopi ; tarsus IV short, bearing four setae, the apical one being very long and barbed ; tarsus III a little longer than tarsus IV and with six setae, the apical being a short simple spine ;

tarsi I and II bearing eight setae, the apical one being modified into a bifid and recurved spine much shorter than the tarsus itself.

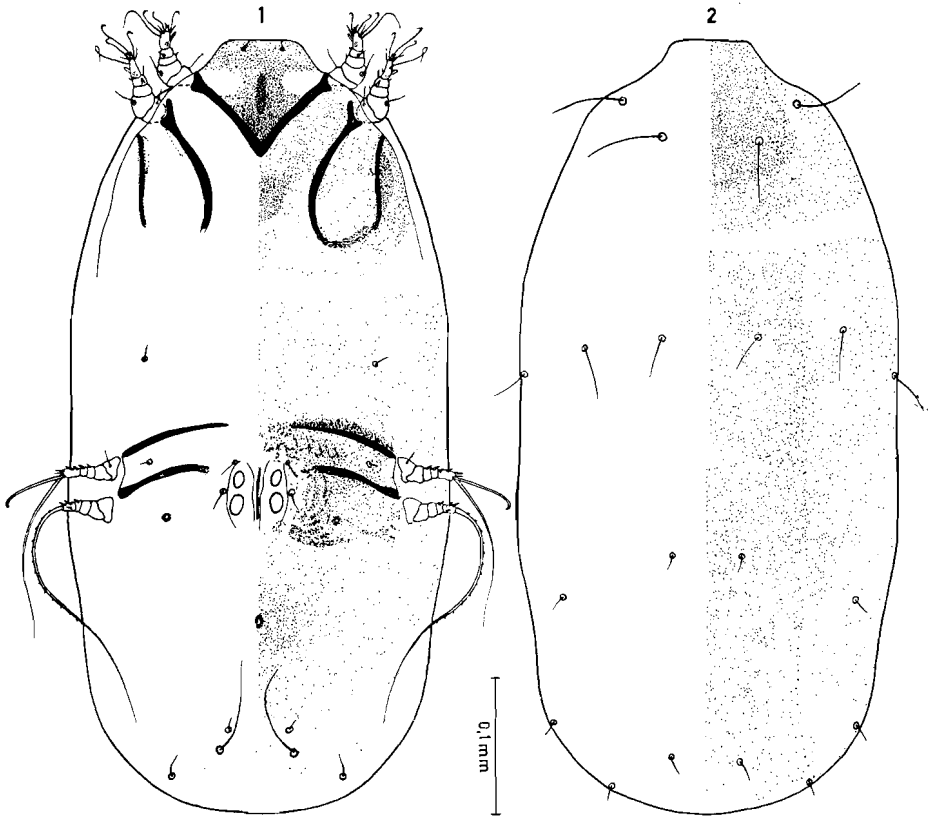
Type species : *Toucanectes ramphastos* sp. nov.

Development of the first epimera : In the young hypopi epimera I and II are short and widely separated in the mid-line. During the growth of the hypopi epimera I are progressively and completely resorbed and replaced by secondary more superficial (cuticular) epimera which become finally fused in the mid-line into a V. The primitive epimera II persist but they are partly absorbed by the new epimera II which are much longer than the primitive ones.

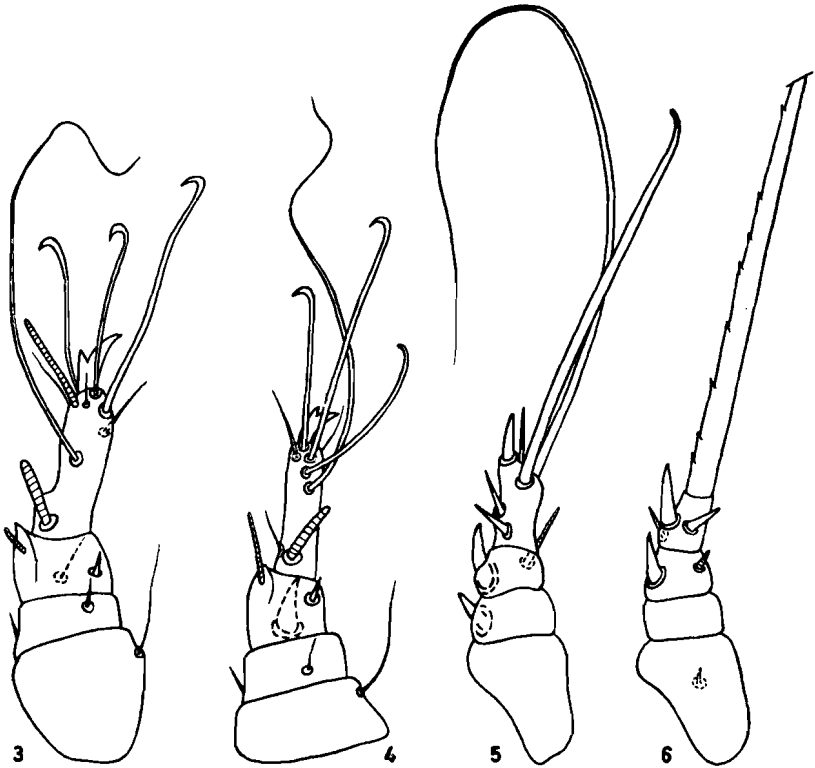
The presence of six setae on tarsus III and four setae on tarsus IV together with the short length of tarsi III and IV put this new genus near the genera *Amazonectes* Fain and *Alcedinectes* Fain. However, in these genera the apical spine of tarsi I and II is much longer and is of a different form, epimera I are fused in the shape of a Y and the solenidia of genua I, II and III are present.

***Toucanectes ramphastos* sp. nov.**

HYPOPUS (holotype) (figs. 1-6) : Length of the body $600\ \mu$; width $255\ \mu$. The length of the mature hypopi varies from 550 to $750\ \mu$, that of the young specimens from 350 to $525\ \mu$. Sejugal furrow not distinct. Propodosoma much more punctate than the hysterosoma. In the completely developed hypopus epimera I are fused in a V. Epimera II united with epimerite II



FIGS. 1 and 2. *Toucanectes ramphastos* sp. nov. Hypopus in ventral (1) and dorsal view (2).



FIGS. 3-6. *Toucanectes ramphastos* sp. nov. Legs I (3), II (4), III (5), IV (6).

by means of a punctate band. Epimera III and IV free. Anterior genital suckers smaller than the posterior ones. A narrow genital sclerite is present. Anus very small. Other characters as above. Chaetotaxy: number of setae on the idiosoma as in *Hypodectes propus* except that the gnathosomal setae are absent.

Solenidiotaxy: as in *Amazonectes psittaci* (Fain & Vercammen 1966) except that the solenidia of genera I, II and III are lacking.

Host and locality: Under the skin of the breast and the flanks of a *Ramphastos sulfuratus* freshly imported from S. America and that died in Antwerp a short time after its importation (7. iii. 1967). Type in the Institut royal des Sciences naturelles de Belgique. Paratypes in the British Museum and in the collection of the author.

References

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